United States Department of Agriculture
National Agricultural Statistics Service, Kansas Field Office

Kansas Chemical Usage

Kansas Agricultural Statistics

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2006 Agricultural Chemical Usage

The agricultural chemical use estimates in this report refer to on-farm use of commercial fertilizers and pesticides on targeted crops for the 2006 crop year. Farm and ranch operators were enumerated late in the growing season after the farm operator had indicated that planned applications were completed. The data were compiled from the Agricultural Resources Management Study (ARMS) conducted by USDA's National Agricultural Statistics Service.

Winter Wheat

Nitrogen applications averaged 64 pounds per acre per crop year and were applied to 80 percent of the planted acres in the Program States (CO, ID, IL, KS, MI, MO, MT, NE, OH, OK, OR, SD, TX, and WA). An average of 34 pounds of phosphate per acre per year was applied to 57 percent of the winter wheat planted acres in the Program States. Potash was applied to 17 percent of the planted acreage at an average rate of 49 pounds per acre per year in the States surveyed.

Herbicides were applied to 49 percent of the winter wheat planted acreage in 2006 in the 14 Program States. Glyphosate isopropylamine salt was the most widely used herbicide, applied to 15 percent of the planted acreage at a rate of 0.963 pounds per acre per crop year. The two next most commonly applied herbicides, on a per acre basis were 2,4-D, 2-EHE and Metsulfuron-methyl, at 14 percent with average application rates of 0.440 and 0.002 pounds per acre per year, respectively.

Insecticides were applied to 3 percent of the 2006 winter wheat planted acreage. Chlorpyrifos, at 2 percent, was the only insecticide applied to more than one half of one percent of the planted acres. It was applied at an average rate of 0.378 pounds per acre per year.

In Kansas, nitrogen was applied to 88 percent of the winter wheat acreage, phosphates to 66 percent, and potash to 8 percent. Herbicides were applied to 53 percent of the winter wheat acreage.

To aid in the prevention of pests, 54 percent of the winter wheat farms in Kansas utilized no-till or minimum till practices. In addition, 45 percent of Kansas wheat farms planted a wheat variety specifically for its resistance to pests. Scouting for weeds, insects, and diseases took place on 86, 57, and 56 percent, respectively, of the winter wheat acres.

Winter Wheat: Acreage, Fertilizer and Herbicide Applications, Selected States, 2006

State	Planted Acreage	Nitrogen			Phosphate			Potash			Herbicide
		Area Applied	Appli-Cations	Rate Per Application	Area Applied	Appli-cations	Rate Per Application	Area Applied	Appli-cations	Rate Per Application	Area Applied
	1,000 Acres	*Percent*	*Number*	*Pounds/acre*	*Percent*	*Number*	*Pounds/acre*	*Percent*	*Number*	*Pounds/acre*	*Percent*
Colorado	2,150	54	1.3	24	36	1.2	15	([2])	([2])	([2])	54
Kansas	9,800	88	1.6	36	66	1.0	30	8	1.0	35	53
Missouri	1,000	97	1.7	54	73	1.0	48	74	1.0	58	28
Nebraska	1,800	75	1.6	35	57	1.0	33	4	2.0	9	56
Oklahoma	5,700	89	1.5	37	65	1.1	33	8	1.1	21	20
Total [1]	35,340	80	1.5	41	57	1.0	33	17	1.1	46	49

[1]Program States include: CO, ID, IL, KS, MI, MO, MT, NE, OH, OK, OR, SD, TX, and WA. [2]Missing data not published.

Winter Wheat: Agricultural Chemical Applications, Kansas, 2004 & 2006[1]

Agricultural Chemical	Area Applied		Applications		Rate per Application		Rate per Crop Year		Total Applied	
	2004	2006	2004	2006	2004	2006	2004	2006	2004	2006
Herbicides:	*Percent*	*Percent*	*Number*	*Number*	*Pounds/acre*	*Pounds/acre*	*Pounds/acre*	*Pounds/acre*	*1,000 Lbs.*	*1,000 Lbs.*
2,4-D, 2-EHE	([2])	10	([2])	1.3	([2])	0.340	([2])	0.450	([2])	434
2,4-D, dimeth. salt	([2])	9	([2])	1.3	([2])	0.418	([2])	0.560	([2])	480
Chlorsulfuron	18	16	1.0	1.0	0.009	0.011	0.009	0.011	16	18
Dicamba, sodium salt	([2])	5	([2])	1.0	([2])	0.091	([2])	0.091	([2])	47
Glyphosate iso. salt	([2])	14	([2])	1.7	([2])	0.519	([2])	0.892	([2])	1,207
Metsulfuron-methyl	20	25	1.0	1.0	0.002	0.002	0.002	0.002	4	6
Thifensulfuron	([2])	12	([2])	1.0	([2])	0.005	([2])	0.005	([2])	6
Triasulfuron	4	6	1.0	1.0	0.01	0.014	0.01	0.014	4	8
Tribenuron-methyl	5	12	1.0	1.0	0.004	0.003	0.004	0.003	2	3

[1]Planted acres in 2006 for Kansas were 9.80 million acres. [2]Missing data not published.

Soybeans

Nitrogen was applied to 18 percent of the 2006 soybean planted acres in the Program States (AR, IL, IN, IA, KS, KY, LA, MI, MN, MS, MO, NE, NC, ND, OH, SD, TN, VA, and WI) at an average rate of 16 pounds per acre per year. Phosphate was applied to 23 percent of the planted acres, at an average rate of 46 pounds per acre. An average of 80 pounds per acre of Potash was applied to 25 percent of the planted acreage.

Herbicides were applied to 98 percent of the soybean planted acreage in 2006 in the 19 Program States. Glyphosate isopropylamine salt was the most widely applied herbicide with 92 percent of planted acres treated at an average rate of 1.330 pounds per acre per crop year.

The herbicide 2,4-D, 2- EHE was a distant second, in terms of percent of acres treated, with 7 percent of the acres receiving an application with an average rate of 0.503 pounds per acre per year.

Insecticides were applied to 16 percent of the 2006 soybean planted acreage. The three most common, Lambda-cyhalothrin, Chlorpyrifos, and Esfenvalerate, were applied to 6, 5, and 3 percent of the planted acres, respectively.

In Kansas, nitrogen was applied to 21 percent of the acreage, phosphates to 25 percent and potash to 8 percent. Herbicides were applied to 100 percent of the soybean acreage while insecticide applications covered 6 percent.

To prevent pests, 75 percent of the soybean acreage in Kansas was under no-till or minimum till production practice. In addition, 81 percent of the Kansas soybean acreage had been rotated with some other crop(s) to control pests. Ninety-four percent of the soybean acreage was scouted for weeds, and the scouting was performed by the operator, partner, or family member on 90 percent of the farms in Kansas.

Soybeans: Acreage, Fertilizer and Pesticide Applications, Selected States, 2006

State	Planted Acreage	Nitrogen			Phosphate			Potash			Herbicide	Insecticide
		Area Applied	Appli-cations	Rate Per Application	Area Applied	Appli-cations	Rate Per Application	Area Applied	Appli-cations	Rate Per Application	Area Applied	Area Applied
	1,000 Acres	*Percent*	*Number*	*Pounds/acre*	*Percent*	*Number*	*Pounds/acre*	*Percent*	*Number*	*Pounds/acre*	*Percent*	*Percent*
Iowa	10,150	7	1.0	14	12	1.0	54	20	1.0	85	99	9
Kansas	3,150	21	1.1	14	25	1.0	40	8	1.0	35	100	6
Missouri	5,150	12	1.0	18	19	1.0	46	22	1.0	67	95	8
Nebraska	5,050	32	1.0	12	32	1.0	43	12	1.0	25	97	5
South Dakota	3,950	29	1.0	17	31	1.0	40	8	1.0	27	99	21
Total [1]	72,880	18	1.1	15	23	1.0	45	25	1.0	79	98	16

[1]Program States include: AR, IL, IN, IA, KS, KY, LA, MI, MN, MS, MO, NE, NC, ND, OH, SD, TN, VA, and WI.

Soybeans: Agricultural Chemical Applications, Kansas, 2006[1,2]

Application Chemical	Area Applied 2006	Applications 2006	Rate per Application 2006	Rate per Crop Year 2006	Total Applied 2006
Herbicides:	*Percent*	*Number*	*Pounds/acre*	*Pounds/acre*	*1,000 Lbs.*
2,4-D, 2-EHE	9	1.0	0.508	0.508	140
Glyphosate iso. salt	96	1.7	0.754	1.315	3,990
Insecticides:					
Lambda cyhalothrin	3	1.0	0.022	0.022	2

[1]Planted acres in 2006 for Kansas were 3.15 million acres. [2]2004 Data not comparable.

Agricultural chemical use and pest management practices data contained in this publication are a summary of data published in USDA NASS Agricultural Chemical Usage – 2006 Field Crops Summary on the internet at http://www.nass.usda.gov dated May 16, 2007.